

## REMARKS

Applicants respectfully request reconsideration of this application as amended. Claims 1-5, 8, and 28-38 are pending in the application. Claims 1 and 8 have been amended. New claims 28-38 have been added. Claims 6-7 and 9-27 have been previously canceled. Support for the amended and new claims can be found in the specifications in figures 3 and 4, elements 250 and 450, paragraphs [6], [20], [24], [30-32], and [35-37]. No new matter has been added.

### Claim Rejections - 35 U.S.C. § 102

The Examiner has rejected claims 1-5 and 8 under 35 USC §102(b), as being anticipated by Yamauchi et al. (PAPUS2002/0112662). In light of the amendment, the Examiner's rejections have become moot. Nonetheless, the following remarks regarding the Examiner's rejections and the amended claims may be helpful to expedite prosecution.

Applicant's invention relates to a system for photoresist recovery comprising: a wafer spindle coupled to the wafer platform, the wafer spindle to spin the wafer platform to propel an excess amount of photoresist deposited upon a wafer placed upon the wafer platform to the interior surface of the bowl; a photoresist recovery container; and a perimeter drain formed within the bowl such that the excess amount of photoresist propelled from the wafer proceeds through the perimeter drain to the photoresist recovery container; wherein the **perimeter drain** comprises a **concave conduit**, where the concave conduit has an approximately **semicircular toroid** shape, for **reducing the surface area** contacting the photoresist being recovered; and a **weeping seal** to permit a wash **solvent** to **wash** the excess amount of photoresist propelled from the wafer through the perimeter drain to the photoresist recovery container.

Applicants recognize that as solvents evaporate from the recoverable photoresist, the photoresist viscosity increases and the photoresist begins to harden and deposit onto the



walls of the drain and other structures. This reduces the amount of photoresist that can be recovered and increases the particulates in the recovered photoresist. Therefore, by reducing the surface area contacting the photoresist, evaporation rates of solvents are reduced. In addition, the use of a weeping seal permits the bowl to be washed of residual excessive resist, replenishing the solvent in the recovered resist, reducing the deposition of resist on walls, and lowering the amount of particulates in the recovered photoresist.

In contrast, Yamauchi fails to disclose or suggest a system for photoresist recovery comprising: a perimeter drain formed within the bowl such that the excess amount of photoresist propelled from the wafer proceeds through the perimeter drain to the photoresist recovery container; wherein the **perimeter drain** comprises an approximately **semicircular toroid** shape, for **reducing the surface area** contacting the photoresist being recovered; and a **weeping seal** to permit a wash solvent to **wash** the excess amount of photoresist propelled from the wafer through the perimeter drain to the **photoresist recovery container**. The cup shapes in Yamauchi are not semicircular and have large surface areas that contact the recovered resist, greatly evaporating its solvent. Further, Yamauchi fails to disclose or suggest a bowl wash that **recovers** the photoresist and solvent. Yamauchi appears to disclose a solvent rinse for removing the backside bead, but neither the resist nor the solvent is recovered, it is all directed to the **waste** drain.

In view of the above remarks, a specific discussion of the dependent claims is considered to be unnecessary. Therefore, Applicants' silence regarding any dependent claim is not to be interpreted as agreement with, or acquiescence to, the rejection of such claim or as waiving any argument regarding that claim. Nonetheless, the following remarks regarding the Examiner's rejections and the amended claims may be helpful to expedite prosecution.



Yamauchi appears to disclose **one recovery drain** and **one waste drain**, and does not disclose nor suggest any **additional recovery drains**, nor the capacity to recover more than one **type** of photoresist. Claim 8 depends on claim 31, which requires a **waste drain**.

Further, Yamauchi fails to disclose or suggest a **treating** apparatus comprising a **viscosity** monitoring apparatus to control **viscosity** by **adding** or **evaporating solvent** to or from the recovered photoresist, thus permitting the photoresist's **reuse**.

Yamauchi fails to disclose or suggest a **solvent-rich** environment coupled to the **recovery drainpipe**. Instead Yamauchi appears to disclose a back-up of solvent vapors from the **waste container**, but indicates that such vapors would be **exhausted** before reaching the **recovery drainpipe**.

Applicant, accordingly, respectfully requests withdrawal of the rejection of claims 1-5 and 8 under 35 USC §102(b), as being anticipated by Yamauchi et al. (PAPUS2002/0112662).

The Examiner has rejected claims 1-5 and 8 under 35 USC §102(b), as being anticipated by Yamauchi et al. (US 6,572,701). In view of the above remarks and in light of the amendment, the Examiner's rejections have become moot. A specific discussion of the dependent claims is considered to be unnecessary. Therefore, Applicants' silence regarding any dependent claim is not to be interpreted as agreement with, or acquiescence to, the rejection of such claim or as waiving any argument regarding that claim. Nonetheless, the above remarks regarding the Examiner's 102(e) rejection appear to apply to this rejection as well, which may be helpful to expedite prosecution.

Applicant, accordingly, respectfully requests withdrawal of the rejection of claims 1-5 and 8 under 35 USC §102(b), as being anticipated by Yamauchi et al. (US 6,572,701).



### CONCLUSION

For the foregoing reasons, the present application is believed to be in condition for allowance, and such action is earnestly requested.


Pursuant to 37 C.F.R. 1.136(a)(3), applicant(s) hereby request and authorize the U.S. Patent and Trademark Office to (1) treat any concurrent or future reply that requires a petition for extension of time as incorporating a petition for extension of time for the appropriate length of time and (2) charge all required fees, including extension of time fees and fees under 37 C.F.R. 1.16 and 1.17, to Deposit Account No. 02-2666.

If there are any additional charges, please charge Deposit Account No. 02-2666.

Respectfully submitted,

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Date: 3/28, 2006

  
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